

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
3 March 2005 (03.03.2005)

PCT

(10) International Publication Number  
WO 2005/020174 A1

(51) International Patent Classification<sup>7</sup>: G08B 17/10

(21) International Application Number:  
PCT/AU2004/001091

(22) International Filing Date: 16 August 2004 (16.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2003904456 20 August 2003 (20.08.2003) AU

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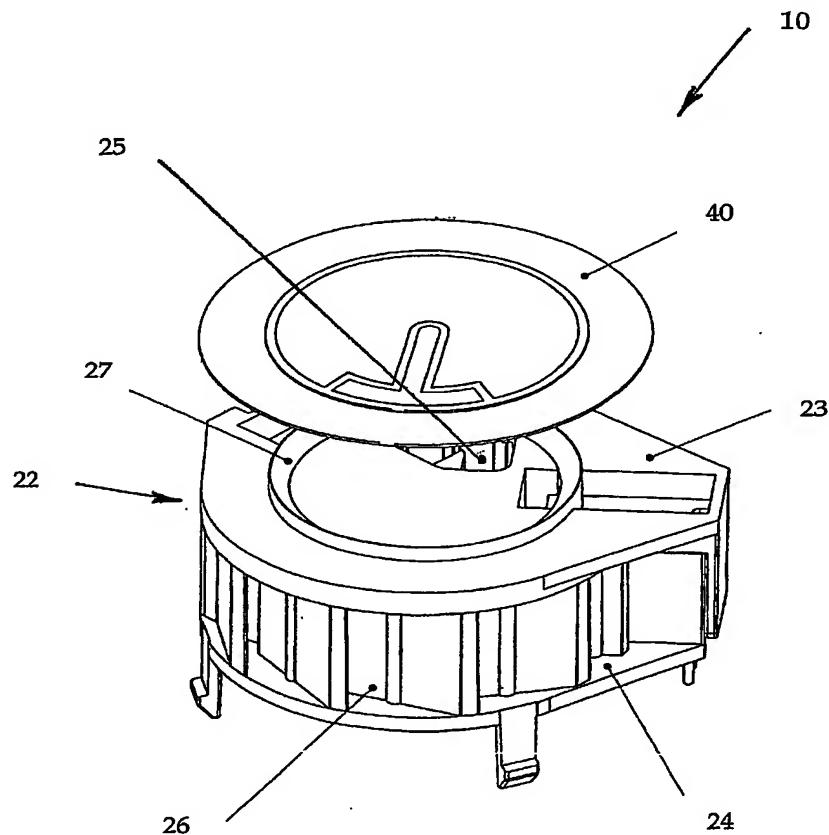
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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CI, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

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(54) Title: A COMPACT SMOKE ALARM



(57) Abstract: A compact smoke alarm assembly (10) is disclosed. The assembly (10) comprises: a smoke detection chamber (20) defined by a body (22) having a plurality of openings for allowing airflow therethrough, the body (22) having a sound inlet aperture (25); a smoke detector (30) mounted to the body for communication within the chamber (20); an electrical circuit operatively connected to the smoke detector (30), the circuit providing an electrical signal when the smoke detector (30) detects smoke in the chamber (20); and a piezoelectric disc (40) mounted external to the chamber adjacent to the sound inlet aperture, the piezo disc (40) operable in response to the electrical signal to generate sound. The smoke detection chamber (20) is sized substantially in accordance to the Helmholtz formula to cause resonance at the operating frequency of the piezo disc (40).

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**Published:**

— *with international search report*